



FITZROY TO GLADSTONE PIPELINE

MARCH - JULY 2025
MCCONNELL DOWELL & BMD GROUP JOINT VENTURE (MBJV)
ROCKHAMPTON, QLD
\$0.70 M



DEMEX was engaged as a subcontractor to support delivery of the Fitzroy to Gladstone Pipeline, a major water infrastructure initiative spanning 117 kilometres through Central Queensland's Gladstone and Rockhampton regions.

DEMEX's in-house engineers worked openly and collaboratively during pre-tender negotiations and the project phase, employing innovative solutions while ensuring project objectives were met.

CHALLENGES

The project presented a range of challenges in design and execution, including engineering and constructing a coffer dam in the Fitzroy River. This required structural bracing of internal faces to address poor geotechnical conditions, managing hydrostatic water ingress pressures, and mitigating excavation vibrations.

River based works required the placement of geo-fabric base layers and scour rock mattresses underwater with zero visibility, with bulk earthworks completed to design levels under submerged conditions.

Environmental and safety risks included managing crocodile activity within the river system, ensuring strict compliance with environmental controls and monitoring requirements. Geotechnical solutions were developed for finger platforms to support 50T+ long-reach excavators, while ingress water was monitored, treated, and discharged in accordance with environmental regulations.

SOLUTIONS

DEMEX successfully overcame these challenges by employing highly skilled personnel experienced in marine and river-based work, whilst collaborating with internal and external geotechnical/structural engineers to develop practical coffer dam designs.

Partnering with PR water engineers ensured effective water ingress treatment and discharge solutions were deployed, using GPS-enabled machinery for precise underwater profiling.

"Croc-wise" training was conducted to mitigate risks of wildlife interaction, with rigorous risk assessments and daily toolbox meetings (DRAW/CRAW) ensuring environmental and operational safety.

HIGHLIGHTS

Highlights of the project included successfully designing and constructing the coffer dam, addressing a complex site constraint that had proven difficult for other contractors and engineers through a practical and effective solution.

The project was delivered with zero environmental breaches. Additionally, zero incidents or accidents occurred, and the work was completed ahead of schedule and under budget.

Despite significant challenges regarding the demolition of the intake wall, DEMEX's expertise and innovative approach delivered a high quality, safe solution.

